

NURSERIES 0353

GENERAL 0353.1

Pursuant to its responsibility to determine, establish, and maintain adequate forest policies, the Board of Forestry and Fire Protection (Board) finds that:

1. An adequate, reliable, and continuous supply of forest tree seed, tree seedlings and other associated plant materials must be assured if the forest values of declared public interest are to be maintained or enhanced.
2. Public policies and practices as demonstrated in the Forest Practice Act, the California Forest Improvement Program, [the Board's Strategic Plan](#), [the Climate Action Plan](#) and the public demand for vegetative material to control erosion, provide wildlife habitat, mitigate climate change, enhance and improve urban settings, and enhance other forest values foster a substantial demand for seedlings of widely varying type, species and seed source.
3. California has a highly varied topography, geology and climate. The combinations of these factors result in more than 80 separate zones of unique ecological characteristics. Of these, only about 45-50 zones are found on commercial forest land. Most of the annual statewide seedling production is utilized on a limited number of these zones. However, there exists a demand for seedlings in the remaining zones, and for plantings of non-commercial [native](#) species, [and for climate adaptation needs](#). When proper seed is not available, seedlings from other zones of different climatic adaptation may be planted and poor quality trees could result. Seedlings or saplings well adapted and suited for other plantings other than for commercial forest production also may also not be available from commercial nurseries. With this in mind, the State must produce many diverse lots of seedlings covering these zones. Even though the seedling production costs are comparatively high for small lots, it is in the State's interest to avoid planting offsite seedlings that are not adapted or suited to a given site or meet the specific needs for planting them.
4. Site specific and viable seed is a vital link in the continued supply of tree seedlings. Such seed has not always been available. Good seed crops are the exception rather than the rule and often such crops occur at many-year intervals. While adequate seed crops are often borne every five to seven years, some important tree species, and seed zones have not had collectable seed crops for up to 20 or more years. Although some seed is produced every year, not all species and seed zones produce collectable seed on the same cycle. In view of such periodicity and variability of seed crops, the State must maintain a highly reliable and sizable seed bank, along with an appropriate processing and testing facility. The seed bank will insure a continuing supply of seed for all appropriate species and zones during the years between collectable crops. California forests are subjected to the sudden and catastrophic effects of wildfire, insects and disease. When such events do occur, the demand for seedlings of specific species and seed zones will increase dramatically for several years. Further, the uncertainties of the effects of climate change also create a need to ensure the maintenance of a substantial and genetically diverse seedbank to address issues of species adaptation. The seed bank will, in addition to meeting the above periodicity and genetic reserve concerns, also insure a seed supply to meet unexpected needs of catastrophic events or ~~the~~ unforeseen opportunities.

5. The production and utilization of seedlings involves substantial uncertainties for the producer, the consumer, and the public. Nursery stock may take more than one year to grow to the optimum size and cannot be held past this optimum age. Consumers cannot always predict their need, but still must have adequate stock or access to private nurseries that produce stock on a timely basis in order to take advantage of economic and climatic opportunities. Finally, if plantings are unsuccessful, long-term timber production, wildland revegetation, urban planting, or other specific needs cannot be met.

6. Increasingly, the public is concerned over the use of toxic chemicals and their effect on the environment and on humans. The Board therefore supports study of alternatives to the use of toxic chemicals in nursery seedling production. Such studies should provide for estimates of costs and the effectiveness of such alternatives. As an outcome of these studies, the Board believes that higher per seedling costs may result and may be appropriately charged for by the State. The Department should provide for rapid technology transfer as any alternatives become available.

7. The Board recognizes that speculative stock is often priced 40 percent or more above equivalent contract material in response to the risk and the uncertainty of sale and that such differential pricing must be considered in nursery policy.

8. Under Public Resources Code Section 4681-4695, the California Department of Forestry and Fire Protection, (CAL FIRE or Department) has the responsibility for maintaining a nursery system; collecting, processing and storing seed; for protecting the genetic integrity and diversity of forest trees and plants species, giving emphasis to native species threatened with extinction; and providing technical and reforestation assistance to landowners. The Board recognizes that there are private producers of seedlings whose capabilities, interests and efforts should not be disadvantaged by the Department's system.

In light of all the findings, it is the policy of the Board that the Department shall maintain a nursery program pursuant to Public Resources Code Section 4681, and that this program shall reflect the following policies:

PRODUCTION 353.2

1. The Department shall acquire and maintain a seed bank as insurance against poor seed crop years and to ensure the restoration of native trees and plants species threatened with extinction. The seed bank will contain a sufficient supply of viable seed, to meet the needs of the Department's nursery system. When excess to the Department's needs, seed may be sold to private nurseries, and landowners unable to be supplied by private seed dealers. The factors to be considered when determining the quantity of seed to be stored shall include frequency of adequate seed crops, anticipated annual demand, availability of seed from other sources, potential for emergency reforestation needs, and seed storage capacity. The seed bank reserves will be sufficiently diverse to provide a depository for protecting genetic diversity of tree and plant species giving emphasis to adaptation to climate change, disease resistance, and native species threatened with extinction where practicable. Where feasible, the Department may acquire cones and seed from private persons or organizations. Cones or seed may be purchased from, or exchanged with, governmental agencies. It is

important to insure the continued availability of quality, source identified seed for the Department and private landowners.

2. The Department shall maintain a facility for cone processing, seed extraction, seed testing and storage, capable of producing an adequate quantity of high quality seed on a timely basis. Processing, testing, and storage services may be made available to persons or organizations on a contract or percentage share basis when adequate facilities are not available elsewhere in the State. When an adequate supply of seed can not be obtained due to lack of good cone crops or due to issues related to spreading disease, the nurseries shall develop or may contract out for alternate means of propagating the species involved.

3. The Department shall maintain a nursery system that can produce or facilitate production at private nurseries a broad spectrum of seedlings, both container and bare root, for the purposes:

- a. Public planting or reforestation of public lands, emphasizing watershed land damaged by fire, flood, insects, disease, or other natural causes.
- b. Restoration of native trees and plant species threatened with extinction.
- c. Soil erosion control, watershed and riparian protection or restoration, or farm windbreaks.
- d. The production of forest products and farm woodlot products on private lands.
- e. Demonstration urban tree plantings demonstrating adaptability a suitability of trees for specific urban setting plantings.
- f. Mitigation of climate change.
- g. Varying sState-funded projects.

4. If the Department, in the future, restore its seedling production facilities, The Department shall plan annual seedling production consistent with the premise that this production is a back-up to anticipated private output for high demand species. The Department shall continue to serve as the basic source for low demand species, for unique species and for those species threatened with extinction. Planned production may also be required to meet the needs for sState-funded projects or for other governmental needs not available from private sources. It is recognized that natural events, public pressure, legislative or governmental mandates or availability of new grants for plantings may cause unexpected shortfalls in production or rapid increases in seedling demands. The Department's plan will address the need to produce seedlings to mitigate these emergenciesfactors.

5. If the Department, in the future, restore its seedling production facilities, The Department shall adjust its production when private nurseries demonstrate the capability and willingness to meet landowner needs for high quality, genetically suitable planting stock.

The above (4 and 5) may be archaic

6. The Department shall prepare a report to the Board at no more than five-years intervals from the approval date of the Board's most recent nursery policy statement (March 6, 1991). This report shall contain the Department's evaluation of the statewide

public and private seed and seedling production. A recommendation of how the Department proposes to adjust its production in the light of current seedling markets and in response to the demonstrated capabilities of private nurseries will be included.

PRICING 353.3

If the Department, in the future, restores its seedling production facilities, the following policies will apply:

The Nursery System Plant Stock Pricing Policy establishes a process for annual determination of the price of plant stock to be sold from the nurseries. The potential for competition with private enterprises will be minimized consistent with providing for essential State needs outlined in Article 2. When the Department follows this policy, annual approval of the price schedule will no longer be needed.

1. Regular Plant Stock Prices

Regular plant stock are those tree species for sale during the current year. The price for bareroot and container stock shall be set at not less than the median price for similar species and stock types established from a sample of at least five (if available) private California nurseries.

2. Advance Reservation Stock Prices

The Department may accept advance reservations for stock to be sold during the following year. The price of reservation stock will be based on a minimum reservation of 500 bareroot or 100 container plants, per species and a discount off the regular stock prices as follows:

- For bareroot stock the discount shall not exceed 10% for quantities of 500 or 1000 plants, and shall not exceed 20% for orders over 1000 plants.
- For container stock the discount shall not exceed 5%.

3. Contract Stock Prices

The Department may accept contracts for the growing of stock. Contracts shall be for a minimum of 5000 bareroot or 500 container plants, per species. The price of contract stock will be based on a discount from the regular stock prices as follows:

- For bareroot stock the discount shall not exceed 15% for orders of 5000 plants and no more than 25% for larger orders.
- For container stock the discount shall not exceed 15%.

Additional discounts may be provided to individuals, nonprofit organizations, or state or other government agencies providing their own seed or planting stock or where sState or governmental agencies have been approved to provide part of the labor needed for producing their crop.

4. Specialized Restoration/Revegetation/Urban Forest Species/Urban Forest and Stock Types

The price of plant material will be determined explicitly for each special project. The following factors will be used to determine prices for specialized contract stock: container

cost, potting mix cost, a square footage charge for green house or growing bed space, a cultural practices charge, a small lot charge for less than 100 plants, and a 30% overhead charge. An additional per plant charge will be assessed for plants staying more than 1 month beyond the agreed contract date. The charge will be based on container size and level of cultural practices required. Specific pricing shall also be developed for growing of disease resistant or genetically improved seedlings or seedlings needed to be propagated by alternate means other than by seed, based on the additional cost to obtain or grow the seed or seedlings needed.
(Section 353.3 modified November 4, 1998)

MARKETING 353.4

If the Department, in the future, restores its seedling production facilities, the following policies will apply:

1. The Department may grow seedlings for private or public entities ~~persons~~ on a contract basis. However, these ~~persons~~ entities shall be advised that the State cost is likely higher, by policy, than such service by private producers.
2. General public sale of nursery stock will begin no earlier than October first of each year to allow all buyers an equal opportunity to purchase. Individual sales of speculative material may be limited so that one large order does not exhaust the supply of one particular item. Contracts, reservations and delivery commitments may be made by the nursery sooner than October first for State and Federal Incentive projects, planting and reforestation projects which require a planning span of greater than one year.
(Section 353.4 modified November 4, 1998)
3. The Department may, for the purpose of distributing information on the availability of seedlings or for determining the numbers of seedlings or species needed to be grown, advertise or provide news releases to solicit sales or information. The Department also is also encouraged to develop and utilize its Forestry Assistance, Forest Practice, Fire Prevention, and Urban Forestry programs to disseminate information on seedling availability and to solicit information on anticipated seedling needs. After fires or other natural disasters the Department also needs to ensure that the victims are made aware of the state and federal nursery systems as sources for replanting their burned or otherwise deforested properties. This information should be incorporated in any fire recovery plans provided after the fires are out. Recovery team information gathered needs to be provided to the appropriate nursery on a timely bases to ensure seed can be ordered and stratified in time for sowing. Other State agencies or departments considering planting projects shall be made aware of the availability of seedlings for their projects through the sState nurseries and provided contact information. This information may also be provided to local governmental agencies to consider ordering from the Department.

OTHER 353.5

1. The Department shall develop an information collection and dissemination program. It may include such items as cone crop evaluations; projection of seed and seedling demands; sources, types and quantities of available seed and seedlings; reports of studies in forestry nursery practice and discussions of problems being experienced by both consumers and producers. To provide such dissemination, the Department may

utilize a regular and timely newsletter, email, website or similar system. Also, the Department shall investigate the opportunity for cooperative agreements with other governmental agencies with similar information disseminating responsibilities. The Department shall continue to provide technical information to seedling consumers through its Forest Advisors and other staff, including the advantages of contracting with private growers for their seedling needs.

2. The Department shall promote and support regional and statewide programs in genetic tree improvement and identification of disease resistant tree species as a means of increasing the quality and quantity of available commercial timber in the future, to help sustain endangered species, and to promote the growing of other tree species with important environmental, economic, or social values.

3. The Department shall provide for demonstration, study and information transfer in the broad area of nursery practices and reforestation. These activities may include investigations of cone crop forecasting and periodicity, cone and seed maturity, new methods of cone processing, seed testing and storage, nursery cultural and seedlings handling practices, species adaptation to climate change, and reforestation techniques. Also, these activities may include the use of workshops, multimedia program development and organization and coordination of Technical Nursery Cooperatives.

4. In the event that CAL FIRE proposes to expand the nursery program, expansion proposals will be reviewed with the Board of Forestry and Fire Protection before implementation. Conversely, the board should be advised of any plans for downsizing or closing of the program for their review and recommendations.

(Section 353.5 modified November 4, 1998)

(Policy adopted March 6, 1991)

5. The Department is encouraged to collaborate with the USDA Forest Service and other public entities on a wide range of nursery and reforestation matters, including measures to address and adapt to climate change.

6. The Department is encouraged to use Conservation Camp Crews, when available, as a labor source for all appropriate phases of cone collection and processing, seedling production, and facilities maintenance.

7. Excess production capacity, if any, at nursery facilities may be utilized, at the discretion of the Director, by government agencies or nonprofit organizations for production of seedlings and other plant materials for purposes such as reforestation, restoration, carbon sequestration, or urban greening purposes. A written agreement shall be entered into for such uses and shall include provision for reimbursement of any Department costs resulting thereby.

8. The Department may enter into agreements with non-profit organizations, such as Resource Conservation Districts, to facilitate and assist in all reforestation service needs. These include: seed surveys, cone sampling, cone collection, contract seed growing, and technical assistance for site preparation and planting.

9. The Department will periodically update the California Forest Improvement Program practices and cost share rates, consistent with the policies and regulations of the Board, to facilitate the reforestation services outlined above.